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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/769,017

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Takeo Tanaami

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WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

WRIGHT, PATRICIA KATHRYN

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

05/17/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/769,017	Applicant(s) TANAAMI, TAKEO	
	Examiner P. Kathryn Wright	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33 and 36-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33, 36-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 19, 2010 has been entered.

Status of the Claims

2. This action is in response to papers filed February 19, 2010 in which claims 33 and 36-37 were amended and claims 39-44 were added. The amendments have been thoroughly reviewed and entered. Any objection/rejection not repeated herein has been withdrawn by the Office.

Claims 33 and 36-44 are under prosecution.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 37 recites a biochip reader further comprising a shield having a plurality of apertures aligned with positions of each of the plurality of samples, however the claim

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omits where the shield is located in relation to the other elements of the reader.

Clarification and/or correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

7. Claims 33, 36, 37, 39-42, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaami (US Patent no. 2001/0001581).

Tanaami teaches a biochip on which a plurality of samples are provided as spots or an array in a two dimensional manner on a surface of the biochip and a biochip reader.

The biochip reader of Tanaami comprises:

a microscopic optical system consisting of a scanning confocal optical system;

a light source 1 which irradiates excitation light simultaneously on a plurality of samples provided as spots or an array in a two dimensional manner on a surface of a

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biochip, and which causes the plurality of samples to emit fluorescent light different in wavelength from the excitation light (see Fig. 1);

a single optical detector 8 which detects the fluorescent light emitted by the plurality of samples as spectroscopic information; and

a separating means 3 for separating the fluorescent light emitted by the samples and developing the fluorescent light as the spectroscopic information at different locations on the single optical detector according to wavelength, the spectroscopic information being developed between images of the plurality of samples, wherein the spectroscopic information is detected by the single optical detector in a two dimensional manner. Note that Fig. 1. is disclosed in Tanaami as a conventional confocal scanner, known in the art (see paragraphs [0004]-[0008]).

With respect to claims 36 and 41, the separating means in Tanaami separates spectroscopic information from noise (see entire document). Note that this element contains no additional structure, therefore it is reasonable to assume the beam splitter 3 separates spectroscopic information from noise.

Regarding claims 37 and 42, the biochip reader of Tanaami further comprises a shield 4 having a plurality of apertures (pinholes) aligned with positions of each of the plurality of samples, wherein the area of spectroscopy is restricted by the apertures (see Fig. 1).

As to claims 39 and 44, wherein the separating means of Tanaami comprises a grating (i.e., beam splitter 3).

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8. Claims 33 and 36-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Dietz et al., (US Patent no. 6,248,988), hereinafter "Dietz".

Dietz teaches a biochip on which a plurality of samples are provided as spots or an array in a two dimensional manner on a surface of said biochip (see for example col. 2, lines 15-16). and a biochip reader.

The biochip reader of Dietz comprises:

a microscopic optical system consisting of a scanning confocal optical system;

a light source 50 which irradiates excitation light simultaneously on a plurality of samples provided as spots or an array (capillaries) in a two dimensional manner on a surface of a biochip, and which causes the plurality of samples to emit fluorescent light different in wavelength from the excitation light;

a single optical detector 76 which detects the fluorescent light emitted by the plurality of samples as spectroscopic information; and

a separating means 58 for separating the fluorescent light emitted by the samples and developing the fluorescent light as the spectroscopic information at different locations on the single optical detector according to wavelength, the spectroscopic information being developed between images of the plurality of samples (see for example col. 7, lines 38-43), wherein the spectroscopic information is detected by the single optical detector in a two dimensional manner (see for example col. 6, line 12 et seq.)

With respect to claims 36 and 41, the separating means in Dietz separates spectroscopic information from noise (see entire document). Note that this element

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contains no additional structure, therefore it is reasonable to assume the separating means 58 separates spectroscopic information from noise.

Regarding claims 37 and 42, the biochip reader of Dietz further comprises a shield having a plurality of apertures aligned with positions of each of the plurality of samples, wherein the area of spectroscopy is restricted by the apertures (see for example col. 13, lines 30-42).

As to claims 38 and 43, wherein the light source of Dietz comprises means for directing the excitation light to be irradiated onto one side of the biochip (outer capillary surface) which is opposite to a side surface wherein the plurality of samples (cells or particles) are arranged.

As to claims 39 and 44, wherein the separating means of Dietz comprises a grating or dichromatic mirror (see col. 6, line 12 et seq.)

9. Claims 33, 36, 39, 40, 41, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Li (US Patent Pub. no. 2003/0223059).

Li teaches a biochip on which a plurality of samples are provided as spots or an array in a two dimensional manner on a surface of said biochip and a biochip reader, see Fig. 5.

The biochip reader of Li comprises:

a microscopic optical system consisting of a scanning confocal optical system;

a light source 20 which irradiates excitation light simultaneously on a plurality of samples provided as spots or an array in a two dimensional manner on a surface of a

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biochip, and which causes the plurality of samples to emit fluorescent light different in wavelength from the excitation light;

a single optical detector 39 which detects the fluorescent light emitted by the plurality of samples as spectroscopic information; and

a separating means 38 for separating the fluorescent light emitted by the samples and developing the fluorescent light as the spectroscopic information at different locations on the single optical detector according to wavelength, the spectroscopic information being developed between images of the plurality of samples, wherein the spectroscopic information is detected by the single optical detector in a two dimensional manner (see for example paragraph [0074] et seq.)

With respect to claims 36 and 41, the separating means in Li separates spectroscopic information from noise (see entire document). Note that this element contains no additional structure, therefore it is reasonable to assume the transmission grating beam splitter 38 separates spectroscopic information from noise.

As to claims 39 and 44, wherein the separating means of Li comprises a grating (i.e., transmission grating beam splitter).

Response to Arguments

10. Applicant's amendments filed February 19, 2010, have removed the rejections of claims 33 and 36-38 under Ogino (US Patent no. 5,422,712) and Kauvar (US Patent no. 6,492,125), however upon further consideration, a new grounds of rejection has been made, as set forth above.

Conclusion

11. No claims are allowed.
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Wright whose telephone number is (571)272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. Kathryn Wright/
Primary Examiner, Art Unit 1797

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